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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/055,546	01/23/2002	Kyle G. Brown	RSW920010178US1	8874
46320	7590	01/11/2006	EXAMINER	
CHRISTOPHER & WEISBERG, PA			OPIE, GEORGE L	
200 E. LAS OLAS BLVD			ART UNIT	
SUITE 2040			PAPER NUMBER	
FT LAUDERDALE, FL 33301			2194	

DATE MAILED: 01/11/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

<b>Office Action Summary</b>	Application No.	Applicant(s)	
	10/055,546	Brown et al.	
	Examiner	Art Unit	
	George L. Opie	2194	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

#### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136 (a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).

#### Status

- 1) ☒ Responsive to communication(s) filed on 13 October 2005.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

#### Disposition of Claims

- 4) ☒ Claim(s) 1-13 is/are pending in the application.
- 4a) Of the above claim(s) ☐ is/are withdrawn from consideration.
- 5) ☐ Claim(s) ☐ is/are allowed.
- 6) ☒ Claim(s) 1-13 is/are rejected.
- 7) ☐ Claim(s) ☐ is/are objected to.
- 8) ☐ Claim(s) ☐ are subject to restriction and/or election requirement.

#### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on ☐ is/are objected to by the Examiner.
- 11) ☐ The proposed drawing correction filed on ☐ is: a) ☐ approved b) ☐ disapproved.
- 12) ☐ The oath or declaration is objected to by the Examiner.

#### Priority under 35 U.S.C. § 119

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d).
- a) ☐ All b) ☐ Some \* c) ☐ None of the CERTIFIED copies of the priority documents have been:
1. ☐ received.
  2. ☐ received in Application No. (Series Code / Serial Number) ☐.
  3. ☐ received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

- 14) ☐ Acknowledgement is made of a claim for domestic priority under 35 U.S.C. & 119(e).

#### Attachment(s)

- 14) ☒ Notice of References Cited (PTO-892)
- 15) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 16) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) ☐.
- 17) ☐ Interview Summary (PTO-913) Paper No(s) ☐.
- 18) ☐ Notice of Informal Patent Application (PTO-152)
- 19) ☐ Other: ☐

  
WILLIAM THOMSON  
SUPERVISORY PATENT EXAMINER

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### DETAILED ACTION

1. The Request for Continued Examination (RCE), filed 13 October 2005, is acceptable and has renewed the consideration of the instant Application. Claims 1-13 are pending.

This Office Action is responsive to the Amendment filed 13 October 2005, in which claims 1 & 2 were amended.

2. Request for copy of Applicant's response on floppy disk:  
Please help expedite the prosecution of this application by including, along with your amendment response in paper form, an electronic file copy in WordPerfect, Microsoft Word, or in ASCII text format on a 3½ inch IBM format floppy disk. Please include all pending claims along with your responsive remarks. Only the paper copy will be entered -- your floppy disk file will be considered a duplicate copy. Signatures are not required on the disk copy. The floppy disk copy is not mandatory, however, it will help expedite the processing of your application. Your cooperation is appreciated.

**3. Descriptive Title Required**

The title of the invention is not descriptive. The title should be as "specific as possible" 37 CFR 1.72 while not exceeding "500 characters in length". The title should provide "informative value" and serve to aid in the "indexing, classifying, searching" and other Official identification functions. A new title is required that is clearly indicative of the invention to which the claims are directed.  
MPEP606.01

4. Claim Rejections - 35 U.S.C. § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

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5. Claims 1, 2, 6, 7, 9-11, and 13 are rejected under 35 U.S.C. 103(a) as being unpatentable over **Moore et al.** (U.S. Pat 6,408,342) in view of Sundius et al. (PGP 2003023577 A1).

**As to claim 1:**

Moore teaches the invention as claimed including a multi-protocol object distribution system (*e.g., a communication framework supporting multiple communications protocols; see the abstract and col.6, lines 23-32*) comprising:

a plurality of remote procedure call transport protocol stubs (*e.g., ONC RPC, DCE RPC, CORBA IIOP, SMTP, SNMP, HTTP, and Java/RMI. Corresponding to each protocol is a Remote Procedure Call Transport 305; col.8, lines 1-4*); and

a meta-stub configured to establish a communicative link with a distributed object using a default RPC transport stub (*current binding for the ObjectReference 501 . . . establish the connection using that current binding; col. 20, lines 2-5 and fig. 12*) select individual ones of the RPC transport protocol stubs through which distributed object services can be provided to requesting clients in the object distribution system (*stub object 303 contains a decision logic for determining which protocol to use in accessing the target object of a remote method invocation...the protocol with the matching the Quality of Service (QoS) required by the Stub 303 is selected; col.19, lines 37-54*).

Moore does not explicitly disclose the additional limitations detailed below.

Sundius teaches the messaging request for establishing a connection and "as a result of the bind process . . . the client using the same connection and the same protocol as the request", prgh[0087] which corresponds to the reestablishing the communicative link using the selected RPC protocol stub.

It would have been obvious to combine Sundius' teachings with Moore because the conversion facility via multiple proxy/stub objects would greatly increase the adaptive capability of client/server communications.

**As to claim 2:**

Moore teaches the RPC transport protocol stubs comprise: a default RPC transport stub (*e.g., a current binding for the ObjectReference 501; col. 20, lines 2-5*), the meta-stub having a further configuration for automatically selecting the default RPC transport stub by default (*e.g., the selection of a protocol is dynamic; col. 7, lines 52-53*); and, at least one other RPC transport stub which the meta-stub can select based upon

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changing conditions in the object distribution system (*e.g., protocol is being used may changed from one invocation of a remote method to the next ; col.7, lines 53-54*).

**As to claim 6:**

Moore teaches the invention as claimed including in a multi-protocol object distribution system (*e.g., a communication framework supporting multiple communications protocols; see the abstract and col.6, lines 23-32*), a remote procedure call processing (*e.g., a remote procedure call class, one remote procedure call transport; see the abstract*) method comprising:

receiving an RPC request for services from a distributed object in a server in the multi-protocol object distribution system (*e.g., the Stub object receives a remote method invocation; col. 20, lines 1-2 and fig. 12*);

establishing a communicative link with the distributed object using a default RPC transport mechanism (*if there is a current binding for the ObjectReference 501, the decision logic attempts to establish the connection using that current binding; col. 20, lines 2-5 and fig. 12*), and querying the distributed object over the communicative link for other RPC transport mechanisms (*e.g., querying the various registered RPC\_Transports 305; col.21, lines 8-10 and lines 36-43*) which are supported by the server (*e.g., those registered in the supported protocols list 417; col. 21, lines 9-10*);

selecting one the other RPC transport mechanisms (*e.g., the protocol with the matching the Quality of Service (QoS) required by the Stub 303 is selected; col.19, lines 51-54*) and re-establishing the communicative link with the distributed object using the selected RPC transport mechanism (*e.g., If the queried RPC\_Transport 305 indicates that it can make the connection and meet any required QoS conditions, step 624, the decision logic attempts to establish the connection ... indicating that a communication channel has been established; col.21, lines 13-22*); and

processing the RPC request for services from the distributed object over the re-established communicative link (*fig. 12 and 13 show the purpose of selecting a protocol and establishing a communication link is to process the RPC request for services*).

Moore does not explicitly disclose the additional limitations detailed below.

Sundius teaches the messaging request for establishing a connection and "as a result of the bind process . . . the client using the same connection and the same protocol as the request", prgh[0087] which corresponds to the reestablishing the communicative link using the selected RPC protocol stub.

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It would have been obvious to combine Sundius's teachings with Moore because the conversion facility via multiple proxy/stub objects would greatly increase the adaptive capability of client/server communications.

**As to claim 7:**

Moore teaches detecting a deterioration in communications over the new communicative link (*e.g., if the QoS provided by RPC\_Transport 305 deteriorates during the course of the execution of a program; col.21, lines 44-46*); further reestablishing the communicative link with the default RPC transport mechanism; and, continuing to process the RPC request for services over the further reestablished communicative link (*e.g., repeat the procedures of FIGS. 13 and 12 at any invocation of a method of a remote object; col.21, line 44-50*).

**As to claim 9:**

Moore teaches surveying network conditions (*e.g., querying the various registered RPC\_Transport 305; col.21, lines 8-9*); and, selecting one of the RPC transport mechanisms best suited to provide a predetermined level of Quality of Service (QoS) in view of the surveyed network conditions (*e.g., If the queried RPC\_Transport 305 indicates that it can make the connection and meet any required QoS conditions, step 624, the decision logic attempts to establish the connection; col.21, lines 14-18*).

**As to claims 10, 11, and 13:**

Note the rejection of claims 6, 7, and 9 above. Claims 10, 11, and 13 are the same as claims 6, 7, and 9, except claims 10, 11, and 13 are machine readable storage claims and claims 6, 7, and 9 are method claims.

6. Claims 3-5, 8, and 12 are rejected under 35 U.S.C. 103(a) as being unpatentable over **Moore** and Sundius as applied to claims 1, 6 and 10 respectively, and further in view of **Mein et al.** (U.S. Pat 6,782,542).

**As to claim 3**, Moore as modified by Sundius does not specifically teach a simple object access protocol over hypertext transfer protocol stub.

Mein teaches a simple object access protocol over hypertext transfer protocol stub (*e.g., A Simple Object Access Protocol ... layered on top of HTTP; col.3, lines 18-21*).

It would have been obvious to a person of ordinary skill in the art at the time the invention was made to combine the

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teachings of Mein with Moore **as modified** because Mein's teachings would have allowed Microsoft Component Object Model Automation objects to be accessed and methods to be invoked over the Internet through Web servers protected by firewalls.

**As to claim 4**, see the discussion of claim 3 *supra* in regards to the use of a SOAP over HTTP stub.

**As to claim 5:**

Moore teaches the RCP transport protocol stubs further comprises, among other things, a remote method invocation (*e.g.*, *Java/RMI*; *col. 7, lines 16-19 and col.8, lines 5-8*) over Internet Inter-ORB Protocol stub (*e.g.*, *CORBA IIOP*; *col. 7, lines 16-19 and col.8, lines 5-8*).

**As to claim 8**, Moore does not specifically teach determining whether the requested service implicates asynchronous or synchronous messaging; and, selecting an optimal RPC transport mechanism supported by the server based upon the determination.

Mein teaches determining whether the requested service implicates asynchronous or synchronous messaging; and, selecting an optimal RPC transport mechanism supported by the server based upon the determination (*e.g.*, *when the server 30 receives the HTTP POST message...invokes a SOAP stub...based on an identifier contained in the header of the data structure*; *col.5, lines 39-45*).

It would have been obvious to a person of ordinary skill in the art at the time the invention was made to combine the teachings of Mein with Moore **as modified** because Mein's teachings would have provided the capability for efficiently performing protocol-mandated data transformations.

**As to claim 12**, see the rejection of claim 8 above. Claim 12 is the same as claim 8, except claim 12 is a machine readable storage claim and claim 8 is a method claim.

7. The prior art of record and not relied upon is considered pertinent to the applicant's disclosure. Specifically, the below reference(s) will also have relevancy to one or more elements of the Applicant's claimed invention as follows:

U.S. Patent No. 6,839,897 to Takagi which teaches the multi-protocol correlation/connection using stub classes;

U.S. Patent No. 6,446,137 to Vasudevan et al. which teaches the liaison mechanisms for managing RPCs among diverse systems; and,

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U.S. Patent No. 6,347,342 to Marcos et al. which teaches the inter-object communications through selected stub adapters.

**8. Contact Information:**

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system.

Status information for published applications may be obtained from either Private-PAIR or Public-PAIR.

Status information for unpublished applications is available through Private-PAIR only.

For more information about the PAIR system, see <http://pair-direct.uspto.gov>.

Should you have questions regarding access to the PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

All responses sent by U.S. Mail should be mailed to:

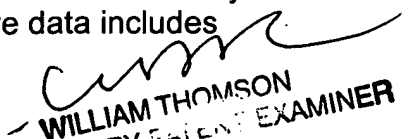
**Commissioner for Patents  
PO Box 1450  
Alexandria, VA 22313-1450**

Hand carried responses should be delivered to the *Customer Service Window* (Randolph Building, 401 Dulany Street, Alexandria, Virginia 22314) and, if submitting an electronic copy on floppy or CD, to expedite its processing, please notify the below identified examiner prior to delivery, so that the Applicant can "handoff" the electronic copy directly to the examiner.

The fax number (571) 273-8300 should be used for all fax transmissions to the Office.

Any inquiry of a general nature or relating to the status of this application should be directed to the Group receptionist at **(571) 272-2100**.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to George Opie at (571) 272-3766 or via e-mail at [George.Opie@uspto.gov](mailto:George.Opie@uspto.gov). Internet e-mail should not be used where sensitive data will be exchanged or where there exists a possibility that sensitive data could be identified unless there is an express waiver of the confidentiality requirements under 35 U.S.C. 122 by the Applicant. Sensitive data includes confidential information related to patent applications.

  
**WILLIAM THOMSON  
SUPERVISORY PATENT EXAMINER**